



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 30, 2019

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SUBJECT: REPORT REGARDING PHASE 2 OF THE OFFICE OF NUCLEAR  
REACTOR REGULATION RISK-INFORMED DECISION-MAKING  
ACTION PLAN (CAC NO. A11008)

This memorandum documents the completion of Phase 2 of the Office of Nuclear Reactor Regulation (NRR) Risk-Informed Decision-Making (RIDM) Action Plan (Action Plan). NRR staff developed the Action Plan in 2017, to continue advancing, for the operating reactor program, the NRR leadership vision to enhance the integration of risk information into the organization's decisionmaking practices and processes. While the enclosed report documents the closure of the 2017 Action Plan, efforts to achieve this vision continue as the U.S. Nuclear Regulatory Commission (NRC) progresses in its use or risk insights to evaluate and inform its regulatory applications and processes.

The Action Plan described a systematic, two-phased approach for implementing the NRR leadership vision for RIDM. Phase 1 of the RIDM Action Plan consisted of the analyses, evaluations, findings, and recommendations for enhancing the integration of risk information into NRR's decisionmaking activities. Phase 1 concluded with the issuance of a report in June 2018

that had recommendations for fostering a lasting cultural impact. During Phase 2, the staff obtained feedback on the Phase 1 recommendations through trial period activities, interviews, and surveys to determine how to implement the recommendations.

Phase 2 culminated in the formalizing of a licensing review approach that increases collaboration between risk analysts and traditional engineering technical reviewers, the development of a systematic, graded approach for expanding the use of risk insights within the existing NRC regulatory framework, the creation of training modules for use during the upcoming rollout of improved guidance documents and procedures, and a foundation for the continued advancement of NRC and industry risk-informed initiatives and for enhanced communication and awareness of RIDM activities and opportunities amongst NRC staff and external stakeholders. Ongoing Action Plan activities for developing and improving procedures, guidance, and training are available in NRR's ticketing system.

The enclosures to this memorandum provide specific Phase 2 results. Specifically, Enclosure 1 provides the report of the NRR staff's efforts regarding Phase 2. Enclosure 2 summarizes the action items captured as NRR tickets. Enclosure 3 describes the Integrated Review Team (IRT) process. Enclosure 4 summarizes the NRR staff's recommendations for process improvements outside of the scope of Phase 2. Enclosure 5 provides background on the development of the tickets in Enclosure 2 for improvements to other NRR processes and the recommendations in Enclosure 4.

There are several ongoing initiatives in the Operating Reactor Business Line that will complement the staff's latest progress and expand the concepts developed in the Action Plan beyond operating reactor licensing. These initiatives will reinforce the expectation to use risk insights holistically at the early stages of regulatory activities to more efficiently guide the staff's efforts, improve communications, and achieve consistency to advance the application of RIDM beyond the nuclear reactor safety program.

As the staff monitors its success in completing the objectives of the RIDM Action Plan, it will continue its efforts to enhance the integration of risk information into the organization's decisionmaking practices and processes to improve the technical basis for regulatory activities, increase efficiency, and improve effectiveness. It is anticipated that NRR staff will continue to build upon the momentum and behaviors fostered throughout the Action Plan development and execution by embracing a transformative mindset that seeks continual improvement towards the additional safety and efficiency gains afforded by RIDM.

If you have any questions, please feel free to contact me.

Enclosures:

1. Final Report of RIDM Project Phase 2
2. RIDM Phase 2 Tickets
3. Revised IRT Process Based on Lessons Learned from Trial Period
4. Recommendations for Process Improvements and Other Actions Outside the Scope of RIDM Phase 2
5. Recommendations for Process Enhancements

SUBJECT: REPORT REGARDING PHASE 2 OF THE OFFICE OF NUCLEAR REACTOR  
REGULATION RISK-INFORMED DECISION-MAKING ACTION PLAN  
(CAC NO. A11008) DATED JANUARY 30, 2019

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